Laboratory Scientific Instruments

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Summary

In the past few years, the Australian science industry has grown and become an increasingly larger contributor to the commercial science world. Australia's science industry is made up of 5,000 manufacturers, distributors, laboratory services providers and researchers. The industry is recognized globally for its scientific research, innovative products and laboratory technical services.

With the support of the Australian Government, the industry has developed an Action Agenda to facilitate growth. Plans include tripling annual exports by 2015 and growing the local industry by more than 10 percent a year.

In 2002-03, Australia's domestic market for science industry products and services was estimated to be US$4.6 billion. Domestic sales revenue was US$2.5 billion. Imports comprised US$2.1 billion and exports were estimated to be US$600 million. Employment was approximately 47,000. In addition, scientific research was value at approximately US$2.3 billion with employment estimated at 22,500.

Market Overview

The Australian science industry comprises researchers/manufacturers of scientific and laboratory-related goods, importer/distributors of scientific and laboratory-related goods, and companies offering a range of laboratory and technical services that involve measurement, analysis and diagnosis.

The industry is growing at more than 10 percent annually and has an R&D expenditure of 7.9 percent of annual sales.

The science industry manufactures & distributes products for applications including:

- Biotechnology
- Scientific and medical research

- Environmental monitoring
- Quality control/quality assurance for the manufacturing industry
- Clinical diagnostics and pathology testing
- Equipping teaching laboratories

Australia's scientific equipment market was estimated to be US$2.25 billion in 2002-03, of which imports accounted for US$2.1 billion. Australia's scientific equipment manufacturers had domestic sales revenue of approximately US$200 million and exports of US$615 million. Employment was estimated at 8,000 people.

Australia's laboratory and technical services market was estimated to be US$2.2 billion in 2002-03. The exports of companies providing these services were US$84 million. Employment is estimated to be around 39,000.

Reflective of many of Australia's industry sectors, the science industry consists of a large number of small companies and a relatively small number of larger companies. Some of the larger companies export up to 90 percent of their production. Manufacturers in Australia tend to produce high-value goods.

Australia's Science Industry Action Agenda launched in 2004 is anticipated to encourage the science industry and scientific researchers to work more closely and collaborate to enhance commercialization in the sector. The Action Agenda is an Australian government program that is led and owned by the Australian science industry. Australia's science industry is globally recognized for its innovative scientific instruments, clinical diagnostics and laboratory technical services. The Action Agenda is aimed at ensuring Australia's continued presence in an international market.

Service industries, comprising pathology, medical/health, environment, R&D and education, and other testing laboratories provided the science industry with approximately 50 percent of its revenue. Manufacturing industries (including food processing) provide the science industry with 17 percent of its revenue.

Australia's overall science performance is among the strongest of all countries. In 2002, Australia contributed 2.88 percent of the world's output of research publications and was ranked ninth out of twenty one countries behind the U.S., Japan, U.K., Germany, France, Canada, Italy and Spain in the total number of research publications, ahead of countries such as the Netherlands, Sweden, Switzerland and Korea. The areas of Australian science with the greatest research publication output are the medical and health sciences, and the biological sciences. Australia's science performance has been leading edge, notably in areas such as medical and health sciences, and biological sciences. Australia also has a

solid research presence in some emerging science and technology fields such as biotechnology.

Market Trends

Among emerging fields of science and technology, the biotechnology industry in Australia is at the forefront of Australia's commercialization of science. The sector has received considerable support and funding from State and Federal Governments. The industry has experienced a high rate of growth and has a promising outlook as it seeks to mature. Most of the commercialization is by smaller local companies. Some of these companies have entered into marketing relationships with larger multinational firms.

There are 370 biotechnology firms in Australia, ranking the Australian biotechnology industry sixth in the world after the U.S., Canada, U.K., Germany and France. Most Australian biotech firms are spin-offs from research organizations and are SME's that rely on one product line. The largest sub-sector is human therapeutics.

As a result of the Australian Federal Government's *Backing Australia's Ability* initiative, there has been a substantial increase in the research funding of Australia's research institutes and universities, particularly in the life sciences sector with most success being in the biotechnology and medical research sectors. Most of this research is likely to be commercialized by the international pharmaceutical sector.

Following the global trend, there is a continuing search for quality, faster and more productive manufacturing and improvements in analysis, verification and diagnostic processes in all fields of industry, science, medicine and research. Opportunities exist in the growing sectors of biomedical research and development, environmental control and research, and product and process quality control (especially in the food and beverage industries). These sectors require increasingly capable equipment and look for improvements and new developments in equipment.

Import Market

Scientific equipment has been manufactured commercially in Australia since the 1950's. The growth of the manufacturing sector is directly attributed to technology transfer from research organizations such as the Commonwealth Scientific and Industrial Research Organization (CSIRO), universities and other research institutes. The scientific manufacturing is concentrated in the State of Victoria.

Australia's science industry is highly export oriented and exports mainly

products for environmental analysis, research in life sciences and pathology/diagnostics.

Examples of successful manufacturers in Australia include: Varian Australia (www.varianinc.com), SGE International (www.sge.com.au), GBC Scientific (www.gbcsci.com) and Vision Biosystems (www.vision-bio.com).

Although there is a scientific manufacturing industry in Australia, it is relatively small, and a large number of products are imported. Imports of scientific products come mainly from the U.S. (41 percent), Europe (39 percent) and Japan (12 percent). The average value of imports is estimated to be around 34 percent of sales revenue.

Given the competitive nature of the market in Australia, industry sources have suggested that a new company entering the market will need to be one of the top five players for that product in order to be successful and gain significant market share. Since the major U.S. and European manufacturers are represented in Australia, the market is well serviced by a large variety of products. Generally, there is a greater opportunity for new and innovative products in the market.

End Users

Australia is a mature market for laboratory scientific instruments. The industry's workforce is highly educated and skilled with approximately half of the workforce having at least a bachelor's degree. Many Australian scientists are pursuing post-doctoral positions in the U.S. and are familiar with U.S. products. Australian scientists are very prolific and represent 1.3 percent of the world's scientists; 1.6 percent of the world's citations and over 2 percent of the world's medical research.

The main customers of the science industry are engaged in pathology (14%), R&D and education (13%), environmental testing (11%), manufacturing (10%), engineering (10%), medical/health (10%) and mining (10%).

The main customers of importer/distributors in the science industry are engaged in R&D and education (25%) and health, including pathology and medical health (24%). The types of products and services sold by importers/distributors are laboratory consumables (23%), research life sciences (23%), environmental/chemical analysis (23%), pathology/diagnostics (12%), and laboratory equipment (7%).

The most important drivers of the scientific equipment segment is government policy toward research and development, and in particular, government purchases. It is estimated that approximately 60 percent of demand for scientific equipment emanate from Australian and State

Government funded agencies, scientific laboratories, educational institutions and research institutes.

Market Access

In vitro diagnostic products (IVDs) are regulated by the Australian Therapeutic Goods Administration (TGA) as a subset of medical devices and include all commercial and in-house IVDs. Further information can be obtained from the TGA's website:
www.tga.gov.au/devices/devices.htm#ivd

Market Entry

Successful market entry strategies include: understanding the market and the competitive environment, selecting the optimal Australian partner, and providing ongoing support to that partner in the market.

U.S. companies most often will appoint an Australian agent or distributor, who may specialize in a niche area, depending upon the products or services involved. Most distributors of medical products prefer an exclusive arrangement for the entire country, and some have the capability of distributing to New Zealand as well. Most of the criteria American firms use to select agents or distributors can be transferred to Australia, with expectations adjusted to the scale of the market.

Opportunities for Networking

Many Australian distributors of laboratory scientific instruments and end-users travel to the U.S. to attend leading conferences in their field, including trade shows such as Pittcon and AACC.

Key Contacts

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If you would like to discuss the potential for your product(s) in the Australian market or would like any other information, we would love to hear from you. Please contact Monique Roos, Commercial Specialist responsible for the laboratory scientific instruments industry sector at: monique.roos@mail.doc.gov

The U.S. Commercial Service in Sydney, Australia is located at Level 59, MLC Centre, 19-29 Martin Place, Sydney NSW 2000 and can be contacted via e-mail at: sydney.office.box@mail.doc.gov; or visit our website: www.buyusa.gov/australia

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